# The Water/Wastewater Asset Management Audit Follow-Up Report

## July 2002

DEDICATED TO IMPROVING THE CITY AND BUILDING PUBLIC TRUST

OFFICE OF THE CITY AUDITOR AUSTIN, TEXAS

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# MEMORANDUM

**TO:** Mayor and City Council

**FROM:** Stephen L. Morgan, City Auditor

**DATE:** July 29, 2002

**SUBJECT:** Water/Wastewater Asset Management Audit Follow-Up Results

Attached is our follow-up report on management's progress in addressing findings and implementing recommendations presented in the Water and Wastewater Utility: Asset Management audit report, issued in September 1998. Three of the five recommendations tested have been implemented, and two have been partially implemented and are underway at this time.

The two partially implemented recommendations focus on the monitoring of repair parts once they leave the central warehouse, and on the undertaking and implementing of an equipment utilization study within the Field Operations Division.

We have communicated the results of our work to management. We appreciate the cooperation that we received from the Water/Wastewater Utility.

Stephen L. Morgan, CIA, CGAP, CFE, CGFM
City Auditor

# WATER AND WASTEWATER UTILITY:
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# WATER AND WASTEWATER UTILITY
# ASSET MANAGEMENT FOLLOW-UP

## BACKGROUND

An audit of the Water/Wastewater Utility's Asset Management processes (audit report S9804) was released by the Office of the City Auditor on September 24, 1998. Management concurred with all 15 recommendations in the report.

Six recommendations specifically addressed the need to improve processes related to fixed and non-fixed assets. Two recommendations addressed the goals and objectives, as well as the implementation, of the *Hansen* Infrastructure Management System (*Hansen* System). The remaining recommendations addressed the management of part supplies used by the utility.

In the case of the Water and Wastewater Utility, asset management refers to the tracking of fixed and non-fixed assets (such as computers, testing equipment, and desks) as well as parts to be used to repair water and sewer lines.

## OBJECTIVES, SCOPE, & METHODOLOGY

The objective of this follow-up was to assess the progress that the Water/Wastewater Utility (W/WW) has made toward addressing the findings and implementing the recommendations set forth in the original audit.

The scope of our work included a review of the five recommendations rated high in the risk and vulnerability process.

To accomplish our objective, we:

- Interviewed key W/WW personnel;
- Observed portions of the annual inventory audit process performed by the W/WW Financial Management Division's inventory specialists; and,
- Reviewed and analyzed a variety of W/WW documentation.

This work was performed in accordance with generally accepted government auditing standards.

## FOLLOW-UP RESULTS

The Water & Wastewater Utility (W/WW) has made important progress in each area that we reviewed. Based on our analysis of the five recommendations reviewed, we consider three recommendations to have been fully implemented:

- Establishment of a process for capturing information on all fixed and non-fixed asset tracking;
- Identification of *Hansen* System goals and objectives; and,
- Proper implementation of the *Hansen* System.

Our work on the two remaining recommendations indicates that they have been partially implemented.

- Monitoring of parts after they leave the central warehouse; and,
- Undertaking and implementing an equipment utilization study within the Field Operations Division.

In the status reports from management for fiscal years 2001 and 2002, W/WW acknowledged that the recommendation on equipment utilization studies had not been fully implemented.

However, our recommendation regarding the monitoring of parts leaving the warehouse was reported as implemented. While the process for tracking these parts has been set up, our review found that not all steps of the process are being correctly followed.

## A number of improvements to the asset management process were noted during our work.

The W/WW Utility now has a process to properly account for all fixed and non-fixed assets. Goals and objectives for the *Hansen* System were established and communicated, although they have not been re-affirmed to W/WW personnel since the reorganization of the management system support section. Also, the *Hansen* System was implemented ahead of schedule and on budget, and all of the required phases of a Systems Development Life Cycle (SDLC) were included in the plan.

**A process has been set up to properly account for all fixed and non-fixed assets within the W/WW Utility.** The original audit recommended the establishment of a process for capturing all fixed and non-fixed assets owned by the Utility. The report also recommended that written procedures for recording, issuing, transferring, retiring, disposing, and accounting for theft of the Utility's fixed and non-fixed

assets be provided to managers, supervisors and employees, along with the training necessary to accomplish the tasks.

The annual inventory process includes having all employees reconcile the list of items under their custody; making changes to the central database based on the reconciliation; and verification audits by Financial Management Division personnel.

**The *Hansen* System goals and objectives were identified and communicated to W/WW personnel.** The goals and objectives for the *Hansen* System Upgrade Project were originally set by a previous Director and were communicated to all personnel by means of a newsletter. As such, we consider this recommendation to be implemented.

However, the goals and objectives have not been re-affirmed to W/WW personnel since the re-organization of the management system support section in May 2001. Hence, not all personnel may be aware that the *Hansen* System is the system of record to be used by W/WW personnel to track service calls and account for materials, labor, and equipment used. Further, some staff indicated that not all employees have 'bought in" to using the system properly in their day-to-day activities.

**The *Hansen* System was implemented properly, and was ahead of schedule and on budget.** The recommendation called for the Assistant Director for Field Operations to ensure that the *Hansen* Project Improvement Team (PIT) adopts a cohesive plan to deploy and implement the *Hansen* System.

We found that all of the required phases of a SDLC were included in the implementation plan. A Steering Committee and a Users Group were established, and individual tasks were tied to the project's justification and objectives. The users group helped direct the implementation of the system through it's SDLC and provided input on the Utility's Operations Database and Process Re-Engineering Projects. In addition, a recent Information Technology project management audit by the Office of the City Auditor noted that the *Hansen* project came in ahead of schedule and on budget, based on available cost information.

As noted above, W/WW has improved management of fixed and non-fixed assets (e.g. computers, desks, etc.). However, as discussed in the following sections, we did note a number of issues related to usage of other kinds of assets (i.e. parts, supplies, and vehicle usage) that still need to be resolved before the findings and recommendations from our audit can be considered fully addressed.

## Because work orders do not accurately reflect parts used, managers cannot adequately monitor job costs.

We found that the Field Operations Division's superintendents do not compare parts usage to in-house or outside benchmarks. In addition, discrepancies identified through inventory counts are not researched and cleared in a timely manner, and not all parts are being properly charged to work orders. Therefore, the job cost data within the *Hansen* System is incomplete and would not allow for a proper comparison to benchmarks.

**Parts have not been charged to job work orders on a timely basis**. The tracking of parts within the central warehouse is done on the City's accounting system of record, AFS2. However, once parts leave the warehouse and are assigned to stock locations (i.e. shop cages and repair trucks), they must be transferred from AFS2 and entered into the *Hansen* System. The *Hansen* System must show the parts as assigned to those stock locations before a supervisor can charge the parts to the work orders.

Our review found that supervisors were frequently unable to meet their deadlines for charging parts to work orders, primarily due to delays in getting the parts entered onto the *Hansen* System. Management has recognized the delays in parts entry and has begun discussing potential improvements including extending the warehouse's bar-code scanning system for parts entry. One problem caused by theses delays was that work orders did not include all parts charges, as outlined below.

**Work orders were often closed without all parts being charged to them.** In order to produce a total cost for each work order (including parts, supplies, labor, and equipment usage), supervisors must charge the work orders with inventory codes for any parts used. While there are some types of repairs that do not require any parts to be used, most of the work orders closed should have some type of parts charged to them.

In addition to work orders that were closed without all parts charged, we noted some work orders that obviously used parts were closed without any parts charged to them. Although general goals were set, firm deadlines have not been established and adhered to for either charging parts from the warehouse to the vehicles or subsequently from the vehicles to the job work orders. However, performance targets for closing work orders were adhered to regardless of the status of the parts on the *Hansen* System, which, when coupled with the delays in entering parts into the *Hansen* System, led to large discrepancies between the *Hansen* System and inventory counts.

**Large discrepancies identified between the *Hansen* System and the actual inventory counts are not researched and cleared in a timely manner.** The problem noted in the section above is leading to large discrepancies after inventory counts are reconciled with the *Hansen* System. Management was not totaling the initial inventory counts, such that an overall total discrepancy between the system and the actual inventory was not compared. While the system reflects a variety of stock locations, the majority of parts flow from the warehouse through a repair vehicle to the job in which they were installed. We sampled a small number of repair vehicles for initial inventory discrepancies. Our testing indicated a range of $189.52 to $4066.99 per repair vehicle each month and there are 32 repair vehicles within the Field Operations Division.

As previously mentioned, the supervisors are responsible for each of their work crew's inventory reconciliation. Discrepancies identified during the inventory reconciliation are to be researched and corrected by properly charging the correct amount of parts used to the work order that represents each job. The W/WW Asset Management Standard Operating Procedure (SOP) states that these discrepancies must either be cleared, or the amounts in question charged to a "Lost/Unaccounted For" work order, that is used to track the total amount of un-cleared discrepancies per fiscal year.

However, the SOP guiding the reconciliations does not address how quickly they must be performed, or when the decision to charge to "Lost/Unaccounted For" account should be made. Because the inventory discrepancies have not been cleared in a timely manner, the process of clearing the discrepancies is cumbersome and requires researching the work performed, sometimes many months after the fact. In one zone (the city is divided into North and South "zones"), personnel estimate that clearing the discrepancies will take nearly eight months worth of work by one FTE.

As noted above, management's own process for resolving inventory discrepancies involved extensive time spent researching un-posted transactions. Reports have now been created to assist the superintendents, who have been charged with reconciling the inventory discrepancies to work orders with no parts charged in an attempt to clear the discrepancies. One example is a report that identifies the work orders that do not have parts charged.

In an attempt to clear the discrepancies, the superintendents are also being allowed to re-open closed work orders that had parts charged in order to charge additional parts to them. This method relies on speculation as to where the parts were actually used. This speculation, while reducing the total amount charged to the "Lost/Unaccounted For"

account, also has the effect of masking the total discrepancy (accounting errors and/or potential theft) between the *Hansen* system and the inventory counts. While we are not stating that any particular level of theft took place, we are also not prepared to state that the amounts charged to the "Lost/Unaccounted For" account are accurate.

In the previous fiscal year, the total charged to the "Lost/Unaccounted For" account was over $140,000. Because of a backlog of discrepancies needing to be cleared, W/WW management is faced with the decision to either devote the manpower to resolve the discrepancies or charge the total amount to the "Lost/Unaccounted For" account.

Adding to the problem, management may be attempting to track too many items, including consumables such as washers, nuts, and shop towels, regardless of their value. Developing standard costs to charge for consumables for each job and reducing the number of items inventoried and accounted for could lessen the problem. Once the process is improved, management could then expand the number of items accounted for should they still desire. Importantly, the dilemma of either charging off large dollars or spending additional labor in a questionable process to "back bill" work orders can be avoided if the process of charging parts to the job work orders is performed in a timely manner.

**Field Operations personnel do not compare parts usage to internal and external benchmarks by type of job performed.** Superintendents are charged, by the Division Manager, with benchmarking and comparing actual parts/supplies usage to averages based on the type of job performed. Comparisons of parts usage to benchmarks such as past usage and/or other entities' usage would allow managers to identify potential cost savings.

Although parts usage information is available on the *Hansen* System by type of work performed, this information is not being compared to benchmarks for two reasons: the inaccuracy of data within the system and, more importantly, the fact that no benchmarks have been set.

## The W/WW utility is not consistently performing periodic inventories, and the ones that are performed can be improved.

Beyond the delays in getting parts entered onto the *Hansen* System as noted in the section above, W/WW has not met its own expectations for performing inventories. Periodic inventories are not being performed as called for in the Division's written procedures. In addition, the process for inventorying parts issued to vehicles needs improvement in order to increase its reliability and reduce their impact on services caused by vehicle downtime while undergoing inventory counts.

**Periodic inventories are not being performed in accordance with Standard Operating Procedures (SOPs), making it difficult to know if parts have been properly accounted for.** According to the W/WW's Asset Management SOP, each vehicle's parts inventory must be counted and reconciled on a monthly basis. The physical count of the parts supply on the repair vehicle should be compared against the *Hansen* System's listing of the items that should be at/on the vehicle at that point in time.

During our review, we noted that the South zone appeared to be conducting inventories on a monthly basis and that in the north zone, the last inventories were performed in June 2001. We noted that the Superintendent has not been requiring the supervisors to complete the inventories in a timely manner, impacting our ability to determine if parts have been properly accounted for.

**The process for inventorying parts issued to vehicles needs improvement.** Inventory procedures for parts issued to vehicles should minimize down time for the vehicles and maximize the objectivity of the count.

Current procedures have led staff to believe that vehicles must be held out of service for several days so that all transactions on the *Hansen* System can be cleared. This step is believed necessary in order to furnish staff with an expected count prior to an inventory.

However, telling the staff ahead of time what the expected counts for parts should be, prevents a proper "blind" inventory from being performed, introducing the possibility of "bias." In addition, the steps necessary to furnish the count beforehand may be unnecessarily contributing to vehicle down time.

## The W/WW Field Operations Division has not performed a formal equipment usage study.

In previous sections we discussed problems with getting parts charged to work orders and with getting the parts inventoried. We also found that the W/WW utility has not analyzed equipment utilization in order to properly determine needed amounts of tools, preventative maintenance requirements, and decisions related to the retirement of old or damaged equipment. The original audit recommended that a formal equipment utilization study be performed to determine the appropriate amount of each type of equipment used or needed for field operations.

**In lieu of a formal study, information on the Field Operations Division's equipment has been entered into the *Hansen* System but no analysis of usage is done with the existing data.** Such a study is necessary in order for Field Operations Division management to ensure that the correct types (and numbers of each type) of equipment are available for the crews to do their jobs.

**In addition, the equipment data is not being used to make preventive maintenance and retirement decisions.** The recommendation also called for the Assistant Director for Operations and Maintenance to ensure that unnecessary equipment is properly disposed of or retired. Without an equipment usage study, the Field Operations Division's preventative maintenance and equipment disposal decisions are based on limited information.

Field Operations Division management has indicated that a plan has been developed to establish a process for analyzing equipment usage similar to what is being done with vehicle usage. This process would involve the data being collected within the *Hansen* System on equipment usage.

## Steps necessary to fully implement prior recommendations

1. In order to establish that the *Hansen* System is the system of record to be used by W/WW personnel to track service calls and account for materials, labor, and equipment used, W/WW should ensure that the system is used as intended and integrated into the organizational culture. Stressing the importance of using the system properly and accurately should ensure that all personnel understand the importance of using the *Hansen* System both as a planning, and a recording tool. Additionally, the Director should establish

accountability for proper use of the system and monitoring compliance.

2. The SOPs should be revised to ensure that work orders are not closed until after the parts used are charged to them. Additionally, performance measures should be reviewed to ensure that the proper elements are being tracked (i.e.; time to complete a job rather than the time to close out a work order on the *Hansen* System.)

3. Proper training for supervisors should be provided so that discrepancies can be researched and cleared in a timely manner. This includes improving procedures for the proper coding of parts numbers. Knowledgeable employees should ensure that procedures are followed in order to limit the practice of charging to the "Lost/Unaccounted For" account.

4. The process of entering parts data into the *Hansen* System needs to be improved in order to allow supervisors to close out work orders in a timely basis. One possible improvement, already discussed by management, is the use of the bar-code system currently used by the central warehouse.

5. Field Operations Division personnel should continue the process of identifying benchmarks for parts usage by type of job performed and establish procedures for regular analysis of information tracked within the *Hansen* System.

6. Periodic inventories should be routinely performed to determine if all of the parts funneled through a specific stock location (such as a shop cage or vehicle) have been properly accounted for and charged to individual job work orders.

7. Inventory procedures should consider periodically (such as once a year) ensuring that "blind counts" are taken by parties other than the stock location custodian. These counts can then be compared to the stock locations' inventory listings produced by the *Hansen* System to ensure that the counts cannot be influenced by what the system shows should be available. Additionally, the SOP and the written procedures do not agree on the frequency of inventory reconciliations.

8. Field Operations Management should continue with plans to create a process to analyze information on equipment usage similar to the process being used to track vehicle usage within the Division.

## ISSUES FOR FURTHER STUDY

**The W/WW Financial Management Division is currently tracking items below $1,000 in value.** In terms of fixed and non-fixed items (e.g. computers, desks, etc.), this is not required by City policies and does add to their workload. The Financial Manager has stated that they may revise their SOP to exclude accounting for items below the City threshold. If a decision is made to raise the threshold up to the City's $1,000 level, they will need to revise their SOPs.

While it is necessary to track some parts valued below $1,000, parts and consumable supplies are being tracked to the levels of washers and nuts. Management may need to develop standard costs to charge for consumables for each job and reduce the number of items inventoried. If such a decision is made, revision of their SOPs for the parts tracking process should also be considered.

# APPENDIX A
# STATUS OF RECOMMENDATIONS

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# APPENDIX A
# Status of recommendations

01. The Department Director should ensure that a process for capturing all fixed and non-fixed assets owned by the Utility is established. In the case of assets acquired as part of CIP projects, criteria and procedures should be established to identify assets that are vulnerable to theft and misplacement. The following activities should be included in this process:
    a. a physical inventory check of all assets using inventory lists provided by the Utility's Finance Department to standardize the process. The inventory check in each work group should be independent and not conducted by individuals from the same work group;
    b. a reconciliation of items identified during physical inventory with the current master list of assets;
    c. inclusion of assets identified during physical inventory but not currently recorded on the current master list of assets;
    d. reconciliation of the equipment located during physical inventory with purchase order documents to verify that WWW is the proper owner of these items;
    e. completion of fixed asset processing forms, property cards, and retirement forms as necessary;
    f. completion of tag and/or serial numbers for all assets currently on master list of assets; and
    g. inclusion of the divisions which currently use the assets on the master list of assets, and amendment of division assignments for assets that have been transferred to other divisions within the Utility.

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**MANAGEMENT RESPONSE:** CONCUR/PARTIALLY COMPLETED/ CURRENTLY UNDERWAY

Implementation Date: Capitalization SOP Completed and Implemented
O&M Capital SOP Implementation October 1, 1998
Asset control SOP Implementation October 31, 1998

INITIATED PRIOR TO AUDIT:
Many of the Utility's efforts for strengthening controls for purchasing, managing, and safeguarding its assets were initiated prior to the audit as part of ongoing improvements. These include development and codification of operating policies and procedures for: (1) purchasing and

asset tagging of capital assets, (2) capitalization and retirement of assets, and (3) Asset Control SOP.

INITIATED AFTER AUDIT:
The development of standard operating procedure for tagging and tracking items costing less than the capital asset threshold of $1,000 as determined by the City was initiated after the audit.

A comprehensive process has been developed to identify, track and account for all fixed assets owned by the Utility as documented by the Utility's Standard Operating Procedures pertaining to: (1) the Capitalization and Retirement Policy, (2) the SOP for tagging of O&M Capital Items, and (3) the Operations and Maintenance program area SOP for Asset Control covering the management of capital asset, small tools, minor equipment, and supplies inventory. These three SOPs require that standard physical inventory checks be planned, performed, and independently monitored. The results of inventory checks will be documented; all discrepancies will be investigated, and corrections and updates to the master asset list will be recorded promptly.

Identification and tagging of equipment at acquisition as well as policies regarding the prompt recording of acquisitions, transfers and retirements have been implemented. The Assistant Director of Business Support Services and the Assistant Director for Operations & Maintenance will ensure that the Utility-wide capital asset policies, and small tool and equipment management policies pertaining to the Utility's Operations and Maintenance program area are fully documented and ready to be implemented by October 1998.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Sept. 1999 |
| October 1999: | Implemented | |

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02. In order to facilitate accomplishment of Recommendation 01, the Department Director should ensure that information about importance of proper asset records, different classifications of assets, and instructions for physical inventories is disseminated to all managers and employees through training sessions.

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| **MANAGEMENT RESPONSE:** | CONCUR/PARTIALLY COMPLETED/ CURRENTLY UNDERWAY |
| Implementation Date: | Asset Management Training October 1, 1998 |

INITIATED PRIOR TO AUDIT:
The Director of the Water and Wastewater Utility has met with the Assistant Directors and Division Managers to stress the importance of effective asset management policies, and has mandated that all current assets be properly identified and accounted for. Asset identification and tagging responsibilities have been reassigned, and based upon initial indications of performance review, significant improvement in the area of master asset records maintenance has resulted.

INITIATED AFTER AUDIT:
The need for increased vigilance and accountability will be stressed in both SSPRs and information meetings with employees throughout the upcoming fiscal year, and asset management training will be included in all supervisor and new hire orientations beginning in FY 1998-99.

The Utility, in addition to its current management practice of providing standard operating procedures, memorandums, and other advisory updates to its managers, supervisors, and employees will include topics on asset management as part of its comprehensive training program. The Budget and Accounting Division of the Water and Wastewater Utility will be responsible for developing additional training programs based on Recommendation 01 and will begin providing training classes in FY 1998-99.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: July 1999 |
| October 1999: | Implemented | |

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03. The Department Director should ensure that WWW establishes written procedures for recording, issuing, transferring, retiring, disposing, and accounting for theft of the Utility's fixed and nonfixed assets that include:
    a. roles, responsibilities, and accountability of WWW's Budget Department, Finance Department, managers who purchase the assets, and employees who use the assets;
    b. appropriate documentation of all assets that includes, but is not limited to, fixed asset processing forms, property cards, transfer forms, and retirement forms;
    c. regular physical inventories of all equipment to reconcile against a master list of assets; and
    d. training of all employees subject to new procedures.

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**MANAGEMENT RESPONSE:** CONCUR/PARTIALLY COMPLETED/ CURRENTLY UNDERWAY

| | |
|---|---|
| Implementation Date: | Capitalization and Retirement SOP Implemented<br>Over-the Counter Inventory Sales SOP Implemented<br>O&M Capital SOP Implementation October 31, 1998<br>Asset Control SOP Implementation October 31, 1998 |

INITIATED PRIOR TO AUDIT:
Many of the Utility's efforts for strengthening controls for purchasing, managing, and safeguarding its assets were initiated prior to the audit as part of ongoing improvements. These include development and codification of operating policies and procedures for: (1) purchasing and asset tagging of capital assets, (2) capitalization and retirement of assets, and (3) Asset Control SOP.

INITIATED AFTER AUDIT:
The development of standard operating procedure for tagging and tracking items costing less than the capital asset threshold of $1,000 as determined by the City was initiated after the audit.

The Water and Wastewater Utility has always taken steps to regularly improve upon its existing management policies, procedures, practices and controls as necessary. Written procedures have been developed, including Standard Operating Procedures pertaining to: (1) the Capitalization and Retirement Policy, (2) the Utility-wide SOP for tagging and tracking capital and non-capital items, (3) the Operations & Maintenance program area SOP for asset control covering management of capital assets, small tools, minor equipment, and supplies inventory, (4) Over the Counter (OC) inventory Sales, and (5) both the Utility-wide SOP on tagging and tracking assets and the SOP on asset control for Operations and Maintenance program area include specific procedures and guidelines for reporting theft and or missing assets.

Regular physical inventories will be implemented, on a biannual basis for capital assets and more frequently for small tools and equipment. Tracking of equipment and supplies subsequent to issue for Utility's Operations and Maintenance program area will be significantly improved with the implementation of the organization's new asset control policy in conjunction with the new automated software. Software and asset control policies will be fully implemented by October 1998. Asset management training will be included in all new hire and supervisor orientations beginning FY 1998-99.

**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Sept. 1999 |
| October 1999: | Implemented | |

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04. The Department Director should ensure that a process is established, and training is provided, to managers, supervisors and employees for the timely reporting and monitoring of loss and theft of equipment.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Asset Management Training October 1, 1998

As part of the additional training programs to be developed and provided by the Utility's Budget and Accounting Division beginning in FY 1998-99 on asset management, the training module will include timely reporting and monitoring of loss and theft of any Utility asset. The Assistant Director of Business Support Services will ensure that a memorandum from the Utility Director is prepared and sent to all Utility employees informing them of the overall asset management and oversight responsibilities of the Budget and Accounting Division, employee level responsibility for physical security and accountability of assets, asset management policy and procedures, reporting requirements, and the availability of training. In addition, the Utility Director and the Assistant Directors will ensure that all employee SSPRs continue to require compliance with this policy. Also refer to Utility's response on Recommendations 01 and 02.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: July 1999 |
| October 1999: | Implemented | |

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05. The Department Director should authorize the Assistant Director of Field Operations to undertake, and implement, an equipment utilization study to determine the appropriate amount of each type of equipment used for field operations. The Assistant Director should also ensure that unnecessary equipment is properly disposed of or retired.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Hansen Inventory Module October 31, 1998

INITIATED PRIOR TO AUDIT:
The Assistant Director for Operations & Maintenance and his staff have

ensured that all vehicles assigned to the program area have been inventoried on the Hansen System and vehicle utilization will be tracked through work orders in the system. The Assistant Director for Operations & Maintenance will ensure that tracking of vehicle and equipment utilization will be on an ongoing basis and related performance will be evaluated during the budget process. A Request For Proposal (RFP) has been developed by the Utility to conduct a fleet utilization study but is presently being reviewed by the Director of City's Financial and Administrative Services Department.

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**AUDITOR RESPONSE:** The recommendation addresses the need to undertake an equipment utilization study which focuses on equipment such as gas tampers, field generators and quickie saws. The fleet utilization study for which an RFP was initiated prior to the audit does not address the recommendation

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Oct. 2000 |
| October 1999: | Underway | Target date: Oct. 2000 |
| April 2000: | Underway | Target date: Mar. 2001 |
| October 2000: | Underway | Target date: Mar. 2001 |
| April 2001: | Underway | Target date: Summer 2001 |
| | (took steps in place of recommended study) | |
| October 2001: | Underway | Target date: April 2002 |

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06. The Department Director should ensure that a system for holding employees accountable for their use of equipment is established. This system should include performance criteria clarifying employees' roles and responsibilities and consequences for lack of accountability.

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**MANAGEMENT RESPONSE:** CONCUR/COMPLETED

Implementation Date: SSPR Requirements Completed
Asset Control SOP Implementation
October 31, 1998

INITIATED PRIOR TO AUDIT:

All supervisors and managers have included in individual employee performance plans (SSPRs) requirements for compliance with City and Utility policies and procedures which specifically prohibit the use of City equipment, tools, property, supplies, and materials for personal purposes. The performance plans also require adherence to and compliance with the City's personnel policies which clearly outlines the consequences for misappropriations, abuse, theft, etc., of City property. The Utility's

Assistant Directors will ensure that beginning in October 1998 when the new employee performance plans for all Utility employees are developed, discussed, and executed, all employee SSPRs will continue to require compliance with this policy.

INITIATED AFTER AUDIT:
In addition, the Assistant Directors will ensure that the asset control SOP will incorporate and reference written procedures of Utility-wide SOP so that a system for holding employees accountable is in place. Furthermore, enforcement of SOP will be clarified and performance criteria will be laid out in employees' SSPR. The Assistant Director for Operations & Maintenance will ensure that this is implemented in all Operations and Maintenance program area employees' SSPR by October 1998.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: July 1999 |
| October 1999: | Implemented | |

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07. The Department Director and the Assistant Director for Field Operations should establish the goals and objectives for the Hansen system. These goals and objectives should identify the information needs of management that can be met through Hansen. The goals and objectives should then be communicated to all Division Managers and Supervisors in Field Operations and Hansen PIT members.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Hansen System Implementation
September 30, 1999

INITIATED PRIOR TO AUDIT:
A copy of goals and objectives for the Hansen System are attached and have been communicated to all division managers and supervisors in Operations & Maintenance. The Assistant Director for Operations & Maintenance will ensure that the goals and objectives are fully implemented by the end of fiscal year 1998-99.

**AUDITOR RESPONSE:** The goals and objectives that the management response refers to relate to the work of the Asset Control PIT and an Inventory Process Improvement Team. They do not address the capability of Hansen to produce management information that would be used in higher level planning and decision-making for Field Operations.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: To be determined |
| October 1999: | Implemented | |

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08. The Assistant Director for Field Operations should ensure that:

a. the Hansen PIT adopt a cohesive plan to deploy and implement the Hansen System. Such a plan should incorporate the steps required in a Systems Development Life Cycle, including identifying the information and infrastructure management requirements of Field Operations;

b. the PIT adheres to established timelines for implementation of the system and hold the PIT accountable for meeting these timelines; and

c. all divisions in Field Operations extend their cooperation and support for the Hansen PIT including responding to requests from the PIT within stipulated deadlines.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Hansen System Implementation
September 30, 1999

The Assistant Director for Operations & Maintenance will establish a team comprised of senior staff members from the program area whose responsibility will be to implement and deploy the Hansen System. The process steps for the deployment will consist of: (1) determination of work groups to be involved in the process, (2) how each work group will be using Hansen, (3) what the future needs of the work groups are, and (4) establish guidelines and timelines for implementation and deployment. The Assistant Director for Operations & Maintenance will ensure full implementation by the end of fiscal year 1998-99 in the Operations and Maintenance program area. All Assistant Directors will ensure that implementation initiatives are begun for their applicable work groups during this timeframe.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Planning | Target date: To be determined |
| October 1999: | Underway | Target date: Jan. 2000 |
| April 2000: | Underway | Target date: Sept. 2000 |
| October 2000: | Underway | Target date: Jan. 2001 |
| April 2001: | Underway | Target date: May 2001 |

October 2001: Essentially Complete
(Scope of project changed)

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09. The Assistant Director for Field Operations should ensure that each division in Field Operations is represented on the Hansen PIT and that these representatives attend meetings. Other divisions in WWW which may be affected by Hansen should also be represented and attend PIT meetings.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Hansen Inventory Module Implementation
October 31, 1998

The Assistant Directors will ensure that each division is represented and in attendance at Hansen System meetings in order to participate in the Hansen System. The Assistant Directors will ensure that all applicable work groups across the Utility are involved in this process for the successful transition to the Hansen infrastructure management system.

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**AUDITOR RESPONSE:** The recommendation addresses the broader implementation of the Hansen System, not just the implementation of the inventory module. Full utilization of Hansen would enable important information to be provided for improved management of Field Operations.

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**Status as reported on 6-month status reports:**
April 1999: Underway Target date: To be determined
October 1999: Implemented

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10. The Assistant Director for Field Operations should hold the Hansen PIT accountable for accomplishing the goals and objectives for the Hansen system. The SSPRs for each Hansen PIT member should reflect this accountability requirement.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Hansen Inventory Module Implementation
October 31, 1998

The Assistant Directors will ensure that the members of the implementation team are held accountable for accomplishing the goals and objectives of the Hansen System. Furthermore, their SSPR's will reflect this accountability. The Assistant Director of Operations & Maintenance will

ensure the inventory module implementation by October 1998. All Assistant Directors will ensure that implementation initiatives are begun for their applicable work groups during this timeframe.

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**AUDITOR RESPONSE:** The recommendation addresses the broader implementation of the Hansen System, not just the implementation of the inventory module. Full utilization of Hansen would provide important information for the management of Field Operations.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Sept. 1999 |
| October 1999: | Underway | Target date: Dec. 1999 |
| April 2000: | Underway | Target date: Jan. 2001 |
| October 2000: | Completed | |

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11. The Department Director should implement a system to effectively communicate new or revised policies and procedures relating to operating procedures and controls in Webberville to its staff and customers.

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**MANAGEMENT RESPONSE:** CONCUR/COMPLETED
Implementation Date: Completed

INITIATED PRIOR TO AUDIT:
The Water and Wastewater Utility already has in place a system for providing information to all managers, supervisors, and employees regarding new and or updates to existing policies and procedures. This includes the SOP distribution process, advisory memorandums, user group meetings, e-mail bulletins, employee information meetings, payroll inserts, newsletters, staff training, and staff meetings. Accordingly, an advisory bulletin was provided to all employees informing them of the procedural changes and reporting requirement improvements at the Utility's Webberville warehouse. This information was also provided to the auditors during the course of their review. In addition, the procedural changes have also been discussed in our regular user group meetings for both the Webberville warehouse as well as the Utility's purchasing function. Both user groups have provided positive feedback regarding the changes.

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**Status as reported on 6-month status reports:**

| | |
|---|---|
| April 1999: | Completed |

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12. The Department Director should implement a monitoring system to determine whether controls over issuance of supplies in Webberville are functioning effectively. As part of this system, Webberville management needs to:

    a. ensure that Webberville staff are required to periodically review and attest to understanding the control requirements for issuance of supplies;
    b. periodically communicate to Webberville customers the requirements to be followed before supplies can be issued;
    c. conduct periodic inspections of Inventory Request Forms and Issue Documents to verify that controls are functioning properly;
    d. conduct periodic observations of Webberville staff to ensure that they are complying with controls;
    e. ensure that the new store management software incorporates the control requirements identified in WWW's new standard operating procedure on over-the-counter sales at Webberville; and
    f. incorporate into the SSPRs of Webberville management and staff the need to comply with controls and operate a monitoring system

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Implementation of Additional Oversight Activities by December 1, 1998

INITIATED PRIOR TO AUDIT:
The Utility has, as part of its ongoing improvement efforts, been taking measures to improve and strengthen its existing controls for its warehouse functions. These measures include improvements to the warehouse operating procedures for monitoring, accounting, reporting, staff training, and on-site security. These measures are also discussed in detail in the Utility's response to the draft audit report.

INITIATED AFTER AUDIT:
The Utility's Assistant Director of Business Support Services will ensure that in addition to all existing monitoring procedures for the warehouse function, the following additional monitoring and oversight activities are carried out on a regular basis:

a. Beginning FY 1998-99, the warehouse management will meet with the Webberville warehouse staff to review the warehouse SOP on a regular basis and require each warehouse employee to attest that they understand the control requirements for issuance of supplies.

b. Beginning FY 1998-99, the warehouse management will ensure that an advisory memorandum is sent or provided to all warehouse customers on a regular basis reminding them of the control requirements to be followed for issuance of supplies.

c. Beginning FY 1998-99, the Utility's internal auditors will on a regular basis select over-the-counter sales transactions to inspect and verify that controls are functioning as prescribed. An inspection file will be maintained by the internal audit staff to document results of the random testing of transactions.

d. Beginning FY 1998-99, the warehouse management will increase the frequency and duration of on-site visits to the warehouse to observe staff compliance with controls.

e. Beginning FY 1998-99, the SSPRs of all warehouse staff including supervisors, managers, and the internal audit staff will include reference to the above requirements.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Sept. 1999 |
| October 1999: | Implemented | |

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13. The Department Director should establish a monitoring system to track accountability for, and usage, of supplies once these are issued from Webberville. In Field Operations, such a monitoring system should incorporate the following elements:

a. tracking the location of supplies from the moment of transfer from Webberville to field crews;
b. providing reports to requesting supervisors of the amount of supplies indented by work groups under their charge;
c. requiring supervisors to undertake periodic inventory checks to ensure that supplies are accounted for and stored safely. Supplies that are consumed in the course of field operations work should be recorded as such. Differences between the amounts of supplies issued and consumed should be reconciled;
d. the Assistant Director for Field Operations should develop benchmark measures for guidance in determining whether supplies consumed for various types of jobs are reasonable;
e. supervisors should monitor the usage of supplies and compare them to the benchmark measures developed in (d)

to ensure that consumption of these supplies are not excessive;

f. inventory checks and monitoring of supply consumption should be appropriately documented, and summary reports should be submitted up the management chain to the Assistant Director for Field Operations;

g. appropriate investigations should be undertaken to reconcile any discrepancies in supplies. Disciplinary action and strengthening of controls should be undertaken when necessary; and

h. the Assistant Director for Field Operations should utilize supplies usage as one performance indicator in field operations. This performance indicator can then be used to identify opportunities for continuous improvement efforts.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY

Implementation Date: Asset Control SOP Implementation October 31, 1998
Hansen Inventory Module Implementation - October 31, 1998
Hansen System Implementation September 30, 1999

INITIATED PRIOR TO AUDIT:
Supplies issued from the Utility's Webberville warehouse and those that are purchased directly from outside vendors will be tracked via the Hansen IMS system by work groups in the scope of the Operations and Maintenance Asset Control SOP beginning in October 1998.

a. Work Group Commodity Receipt Designees will enter information acknowledging receipt of supplies into the database. Safeguards have been designed in the system that insure that no one individual will be able to both enter the receipt acknowledgment and/or transfer/issue supplies.

b. The IMS system has reporting capability to generate reports by stock locations. Supervisors on an as needed basis can generate these reports. The reports show receipts and/or issues by stock locations (with various parameters available).

c. The Standard Operating procedure requires users to inventory/reconcile a stock location on a monthly basis. In addition the SOP requires supervisors of end users to inventory/reconcile locations quarterly or on an unannounced basis if circumstances/trends dictate.

d. Reports generated as described in items a, b, and c above will be used in Fiscal Year 1998/99 to establish future benchmarks.

e. Using the above reports supervisors will be required to monitor usage against the established benchmarks.

f. Supply usage reports will be generated on a monthly basis as a minimum and routed through Division Managers to Assistant Directors for affected program areas.

g. The Standard Operating Procedure requires users to inventory/reconcile a stock location on a monthly basis. In addition, the SOP requires supervisors of end users to inventory/reconcile locations quarterly or on an unannounced basis if circumstances/trends dictate. The SOP requires that supervisors charge out lost/unaccounted for commodities to a Work Group Work Order. The back up documentation will be scanned into the system and attached to the work order. The Utility, in the past, has applied and will continue to apply, appropriate measures in the event of improper use or theft of City materials.

h. As key benchmarks and trends are established during Fiscal Year 1998-99, performance indicators will be established and used in the SSPR process.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: Oct. 2000 |
| October 1999: | Underway | Target date: Apr. 2000 |
| April 2000: | Underway | Target date: Apr. 2000 |
| October 2000: | Completed | |

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14. The Department Director should establish a system to ensure that surplus supplies from CIP projects are properly accounted for and disposed of systematically. These surplus supplies should be routinely identified and transferred to an appropriate facility to guard against theft. Disposition may include auctioning of supplies, re-deployment of materials within the Utility or through establishing contracts with scrap recycling companies.

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**MANAGEMENT RESPONSE:** CONCUR/CURRENTLY UNDERWAY
Implementation Date: Scrap Sales SOP Implementation
March 31, 1999

INITIATED PRIOR TO AUDIT:
As we advised the auditors during the course of their review, the Utility has been in the process of coordinating with the City's Purchasing Office and other City departments to accomplish two objectives. First, to finalize its

very own SOP on the subject of scrap materials and supplies and second, to put in place a contract agreement for scrap sales. A draft copy of the SOP on scrap materials and supplies was also provided to the auditors for their review. This SOP when finalized and implemented would supplement the City's scrap policy that is already in place and would specifically address the unique needs of the Utility. As we explained to the auditors, until a scrap materials and supply service agreement is put in place, implementation of the SOP would not be effective. This SOP would cover all scrap materials and supplies regardless of the activity generating the scrap such as CIP projects or regular repairs and maintenance. The Utility anticipates the completion of both the SOP and the contract agreement for scrap sales by March 31, 1999.

It is rare that new equipment and materials are left as surplus after construction is completed on a capital improvement project. Under these rare occurrences, as our practice has been in the past, if there are undamaged equipment or supplies left that the Utility has paid for, they will be documented and moved to a storage area for future use.

A good example of this practice is at the Utility's Hornsby Bend facility. Both PVC and aluminum pipes are stored at this facility. The PVC pipe was bought in FY 83-84 to create a siphon from Lake 1 (east end) to Lake 3. This project was discontinued and the pipe was stored and later used for diversion piping in the drying basins. The pipe was used for various other wastewater projects in the plant. The use of this pipe for projects for other than "wastewater uses" was restricted due to contact with sewage sludge. The aluminum pipes are currently used for irrigation in the "Sideroll Irrigation System" at Hornsby Bend. These pipes were part of the irrigation system brought from Williamson Creek WWTP when it was decommissioned. These pipes were used extensively at Hornsby for irrigation before the current center pivot systems were installed. These pipes are also used to replace existing irrigation pipe which may be damaged in the fields.

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**Status as reported on 6-month status reports:**

| | | |
|---|---|---|
| April 1999: | Underway | Target date: June 1999 |
| October 1999: | Implemented | |

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15. The Department Director should establish a control environment that places emphasis on the need for the efficient and honest use of supplies. To accomplish this, management should specify accountability for supplies as a measure against which managers and employees would be evaluated in their SSPRs. Incentives for accountability and consequences for the lack thereof should be

clearly communicated to employees and consistently enforced by management.

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**MANAGEMENT RESPONSE:** CONCUR/COMPLETED
Implementation Date: Completed

INITIATED PRIOR TO AUDIT:
For several years now, the Utility has employed and continues to employ work standards, management practices, and overall management directives which clearly constitute not only a management philosophy but a work environment that encourages and promotes accountability and honesty at work. This is evident by the fact that every employee's performance expectation plan (SSPR) has included, and will continue to include, compliance with City and Utility policies and procedures which prohibit the use of City equipment, property, supplies, and materials for personal purposes. The City's personnel policies clearly outlines the consequences of misappropriations, abuse, theft, etc., of City assets. In addition, the Utility's management will ensure that all employee SSPRs continue to require compliance with this policy.

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**AUDITOR'S RESPONSE:** Specific accountability for managers and employees should be made clear in the SSPRs. Reference only to compliance with City and Utility policies in the SSPRs does not ensure that effective communication to employees regarding the importance of accountability for supplies has occurred. Nor does it emphasize to individual employees the importance of safeguarding and using supplies efficiently.

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**Status as reported on 6-month status reports:**
April 1999: Completed

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